

NEW YORK STATE COMMISSION ON CABLE TELEVISION

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November 30, 1992

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Donna R. Searcy, Secretary Federal Communications Commission 1919 M Street, N.W. Washington, DC 20554

Re:

MM Docket No. 92-260

Dear Ms. Searcy:

I am enclosing herewith an original and nine copies of comments submitted by the New York State Commission on Cable Television in the above-referenced proceeding.

Very truly yours,

John L. Grow Counsel

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FEDERAL COMMUNICATIONS COMMISSION

In the Matter of

Implementation of the Cable Television Consumer) MM Docket No. 92-260 Protection and Competition Act of 1992) Cable Home Wiring)

COMMENTS OF THE NEW YORK STATE COMMISSION ON CABLE TELEVISION

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New York State Commission on Cable Television Corning Tower Bldg. Empire State Plaza Albany, New York 12223 (518) 474-4992

Dated: Albany, New York

November 30, 1992

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Before the FEDERAL COMMUNICATIONS COMMISSION

Washington, DC 20554

FEDERAL COMMUNICATIONS COMMISSION

OFFICE OF THE SECRETARY

In the Matter of

Implementation of the Cable Television Consumer Protection and Competition Act of 1992)	MM Docket No. 92-260
Cable Home Wiring)	RECEIVED DEC 1 1992
COMMENTS OF THE NEW COMMISSION ON CABLE	YORK STA TELEVISÌ	ATECC - MAIL ROOM

- 1. The New York State Commission on Cable Television ("NYSCCT") respectfully submits comments in response to the Notice of Proposed Rulemaking ("NPRM") released in this docket November 6, 1992. NYSCCT is an independent Commission with broad authority to promote and oversee the development of the cable television industry in the State of New York. NYSCCT is expressly authorized by Section 815(6) of the Executive Law of the State of New York to represent the interests of the people of the State before the Federal Communications Commission ("Commission").
- 2. This rulemaking is commenced pursuant to Section 16(d) of the Cable Television Consumer Protection and Competition Act of 1992 ("Cable Act of 1992"). The Cable Act of 1992 was enacted into law October 5, 1992. Section 16(d) provides as follows:

"HOME WIRING. - Section 624 of such [Communications] Act (47 U.S.C. 544) is further amended by adding at the end the following new subsection:

(i) Within 120 days after the date of enactment of this subsection, the Commission shall prescribe rules concerning the disposition, after a subscriber to a cable system terminates service, of any cable installed by the cable operator within the premises of such subscriber."

This amendment is identical to provisions contained in separate bills passed by the United States Senate (S.12) and the United States House of Representatives (H.R. 4850), and is so recognized by the Conference Committee in its report accompanying the Cable Act of 1992 dated September 12, 1992.

3. Although Section 16(d) is entitled "Home Wiring," the task assigned to the Commission is a notably limited one. Specifically, this rulemaking is limited in at least three significant ways. First, it applies only to the disposition of wiring after termination of service. Second, it applies only to wiring installed by the cable operator. Third, it applies only to that portion of cable wiring on the subscriber's property which is located within the subscriber's dwelling unit. Given the limited scope of the plain language of Section 16(d), the Commission could discharge its responsibility to prescribe rules concerning disposition of wiring upon termination simply by adopting a rule which would require a cable operator to remove all internal wiring installed by it at the time cable service is terminated. Such a requirement, however, would be wholly unnecessary and impractical and would create more problems than Congress suggests exist today. NYSCCT opposes such a rule. Another possibility, with a much less obtrusive impact, would be a rule preventing a cable operator from removing internal wiring unless specifically requested to do so by the terminating subscriber. This is, perhaps, a more feasible solution to Section 16(d) and one which would be more likely to sustain a status quo which, in the judgment of NYSCCT, does not warrant federal rules.¹ Nonetheless, there is evidence in the legislative history that Congress

¹ It is the experience of NYSCCT that cable operators are not attempting to remove internal wiring upon termination of service and homeowners are not asking that they do so.

intended the Commission to consider the ownership of wiring upon termination of service² and it is unlikely that any rule could avoid entirely the question of ownership of wiring in every circumstance. Accordingly, NYSCCT expects that many of the commentors herein will focus on the implications of ownership and the Commission will necessarily consider it.

4. It is the position of NYSCCT, at this time, that the issue of ownership of internal wiring is secondary to the issue of safe, adequate and reliable cable television service at the subscriber's television receiver(s). NYSCCT believes that the cable operator (or other multi-channel video programming distributor) must be responsible for the transmission of video signals to each television receiver irrespective of the ownership of internal wiring. In this regard, NYSCCT readily supports the statement in the legislative history and cited by the Commission in the NPRM at paragraph 6 that "[c]able operators continue to have legal responsibility to prevent signal leakage, since improper installation or maintenance could threaten safety services that operate on critical frequencies." (House Report, p. 119) NYSCCT also submits that it is uniquely qualified to support the need for

As stated in the House Report: "The Committee believes that the subscribers who terminate cable service should have the right to acquire wiring that has been installed by the cable operator in their dwelling unit. This right would enable consumers to utilize the wiring with an alternative multi-channel video delivery system and avoid any disruption in the removal of any such wiring may cause." (House Report, p. 118) The Report goes on to suggest a "good actor" test for subscribers, i.e., the Committee suggests that subscribers who are terminated for nonpayment should not be given the opportunity to acquire internal wiring in view of the serious theft of service problems in the cable industry. In the Senate Report, after noting that some cable operators claim ownership of internal wiring and do not offer it to the homeowner, but remove the same causing disruption, the Committee states that the Commission "should extend its policy [concerning telephone wiring] to permit ownership of the cable wiring by the homeowner." (Senate Report, p. 23) It is noted here that to the extent the Senate Report suggests resolution of ownership issues outside the context of termination of service, it is plainly inconsistent with the language of the statute and thus should not guide the Commission in this rulemaking.

such legal responsibility and to describe the other safety and technical implications of Section 16(d) and this rulemaking which favor full accountability by the cable operator for internal wiring. In Part I of these comments NYSCCT will address the technical implications of wiring on subscriber premises. Mindful that some consideration of the issue of ownership upon termination is inevitable in this proceeding, NYSCCT will comment upon other issues raised by Section 16(d) in Part II of these comments.

PART I

TECHNICAL CONSIDERATIONS

NYSCCT EXPERIENCE

- 5. During the course of twenty years of overseeing the cable television industry in New York State, NYSCCT has conducted more than two thousand technical performance tests of cable systems. The body of information compiled from these tests is the most extensive and comprehensive of any governmental entity involved with the cable industry with the possible exception of the Commission itself. NYSCCT's testing program has evaluated the broad spectrum of issues related to technical performance, safety, construction techniques and subscriber premises.
- 6. It is the judgment of NYSCCT that technical performance [and safety] of the subscriber premises wiring is not of minor consequence in the performance of a modern cable television system. This is particularly true as the capacity of modern CATV systems has increased to the point where, in New York, most cable systems are now providing, or are in the process of rebuilding to provide, a bandwidth generally between 450 and 550

Megahertz and in some instances as much as 1 Gigahertz directly to the subscriber's television receiver. The performance of such systems depends on <u>all</u> portions of the system -- including the wiring on subscriber's premises -- operating properly.

LIFE AND FIRE SAFETY

- 7. Among the most significant issues related to premises wiring is the issue of life and fire safety. Cable television service like any other service entering the home can be a very real source of danger under certain conditions. Storms, accidents and equipment failures can energize cable television wiring inside a home causing the risk of fire and electrocution. These hazards are recognized in the National Electric Code which identifies proper materials and installation techniques as well as acceptable methods for bonding and grounding subscriber drop cables. The use of approved materials and installation practices is particularly important in multiple unit dwellings where installations using improper wiring materials could cause increases in the amount of toxic gases or actually speed the spread of fire. As will be noted elsewhere, wiring techniques and the quality of workmanship may also readily compromise the performance of subscriber cable service. The field experience of NYSCCT technical staff indicates that this is particularly the case with regard to the safety aspects of cable.
- 8. During the course of testing cable television systems, NYSCCT technical personnel have physically inspected many thousands of subscriber premises installations. These inspections have evaluated and recorded the effectiveness of the grounding and bonding techniques, measurement of CATV coaxial sheath ground currents and the general state of subscriber premises wiring installed by cable companies, outside contractors and

subscribers themselves. For purposes of illustration, NYSCCT staff has compiled data collected from a typical sample of subscriber premises inspection records conducted in the fall of 1991. This sample is based upon inspections of six systems located in rural and both large and small urban areas. An evaluation of the aggregate subscriber wiring safety installations showed the following:

CATV Systems	6
Total Subscriber Installations Inspected	378
Number of CATV caused non-compliant Installations	125
Number of Installations with Non-CATV	22
caused safety violation	

Among the 22 non-CATV caused safety violations noted in this sample:

CATV Grounding installations physically broken	2
CATV Ground removed by electrical contractor	4
CATV Ground removed due to plumbing modifications	4
CATV Ground compromised by telephone installation	3
CATV Ground removed by customer to add splitters	8
or other tampering	
CATV Ground removed because of remodeling	1

9. In all 378 subscriber installations inspected, the safety and quality of all cable wiring were the responsibility of the cable company and generally no modification of the cable wiring should have been done by the subscriber or others. It is also noted that of the 125 non-compliant installations that are attributable to the cable company, 73 were attributable to two companies. (One of those two companies was cited in a show cause proceeding and fined by NYSCCT for non-compliance as a result of these inspections.) Generally most cable companies in New York now conduct their own inspection of subscriber premises wiring for safety in the context of any new installation or reconnection.

10. The data shows a significant number of safety code problems related to subscriber premises wiring that were caused by the subscriber or others. This sample alone identified 22 out of 328 of the installations, or 5.8%, that were unsafe solely due to the actions of the subscriber or others who tampered with subscriber premises wiring. In other words, originally proper and safe cable installations had been compromised by subsequent actions of the subscriber or others. It is submitted, therefore, that if subscriber premises wiring is not maintained by reasonably knowledgeable personnel there is a substantial likelihood that unsafe installations will result.

SIGNAL LEAKAGE

11. Cable signal leakage has been identified for a number of years by the Commission as having a potential for serious interference to other over the air services. Generally, the most attention has been paid to interference to voice and navigation signals in the aeronautical service (108 to 132 MHz range) and to police and emergency services (148 to 175 MHz range). Actually, harmful interference to any over-the-air signals is a possible consequence of cable signal leakage. Signal leakage from the VHF range through low UHF range is not an infrequent occurrence. Due to the nature and difficulty of investigating cable signal leakage and electromagnetic interference in general, it is likely that the source and consequences of such interference is documented only in the most severe or persistent cases. The consequence of electromagnetic interference from any source, including cable television systems, ranges from none, to a minor annoyance, to a life-threatening hazard as, for example, in the case of critical aeronautical navigation or communications.

- 12. NYSCCT has routinely inspected cable television systems for signal leakage for nearly twenty years and throughout said period has documented thousands of leakage locations in systems throughout the State. Most often these leaks are of relatively low intensity and not capable of serious interference beyond a few hundred meters from the source; however, large numbers of such radiations can have a cumulative effect as the Commission has acknowledged in its rules that require cable operators to monitor and document the quantity of cumulative cable signal leakage.
- 13. Although the source of very high level cable leakage is often trunk lines and amplifiers with connector or housing problems, leakage from subscriber drops and premises wiring and devices is common. This is demonstrated, for example, by a recent inspection by NYSCCT technical staff of an upstate New York system. During the course of that inspection, 73 locations were identified as the cause of signal leakage in excess of the limits set by the Commission. The cause of each of these leaks was later identified as follows:

Trunk connector or trunk cable problems	10 locations
Amplifier housings or connector problems	13 locations
Unidentified or non-specific causes	17 locations
Loose "F" connectors on subscriber drop	26 locations *
Unauthorized subscriber connections	7 locations *

Of the 73 locations noted, 33 locations (as marked with an (*)) involved the subscriber drop at some point. The 17 unidentified, or non-specific causes, were also likely to have involved a number of subscriber wiring sources that, when later investigated, could not be specifically identified. Thus, between 45% and 68% of all signal leakage locations involved the subscriber drop. Although this percentage will vary to some extent depending on the

diligence with which a cable company pursues leakage detection and elimination, this distribution is probably typical of many systems. In short, cable leakage from subscriber drops is a common problem and the cause of a significant percentage of cable leakage.

14. As noted, signal leakage is not often easily detected. In some instances an extensive amount of time and material is involved to resolve such a problem. For example, experience shows that excessive flexing of a cable, or crushing or cutting or other physical damage to the cable or connectors will cause leakage. The installation of the connectors on subscriber premises wiring also accounts for a significant percentage of leakage and other problems. This task is very subtle and even trained technicians experience problems with installing the seemingly simple "F" connectors so that such connections will be durable and not cause signal leakage. Accordingly, the Society of Cable Television Engineers devotes substantial effort in it's training programs to just this topic. It might also be noted that in a recent (September, 1992) issue of the CATV trade journal, Communications Technology, the attachment of "F" connectors was the subject of a six page article.

SIGNAL QUALITY

15. The quality of materials, workmanship and proper maintenance of subscriber wiring has always been a factor in providing a high quality cable television signal. This is particularly true in the modern cable systems of 450 MHz and greater capacity. Factors that may not be obvious, such as the type of coaxial cable used for the subscriber drop, are very important for the proper performance of cable systems. As noted elsewhere, various critical factors such as cable signal leakage and proper installation techniques are

directly related to the provision of high technical quality. For example cable signal leakage is often accompanied by signal impairments such as ghosting. Low signal levels caused by the use of inferior quality cable, the use of too many splitters or improperly installed connectors usually results in a snowy picture.

16. Cable systems in New York have embarked on a very substantial rebuild program to increase the channel capacity delivered to subscribers. These systems are being designed to deliver 450, 550, 750 and even 1000 Mhz capacity all the way to the subscribers TV receiver. The quality of subscriber drop cable including internal wiring and installation is not insignificant to the delivery of state-of-the-art cable service. The amount of cable loss for older cable wiring is often so excessive as to render the wiring unusable for these new high capacity services. It is obvious that ownership of antiquated wiring is of little value.

17. One possible detrimental effect of the transfer of cable wiring ownership from the cable operator is that it may serve to impede the development of increased bandwidth cable systems. This would occur because of the difficult cost recovery issues involved when wiring ownership is transferred, and there is a need to upgrade or replace premises wiring because higher system capacities are activated. This could place the cable company in a difficult position of having to require subscribers to pay substantial installation or wiring upgrade fees to meet promised system capacity obligations. More important in such an issue is the competitive market forces that may be present when subscriber owned wiring must be upgraded, and the subscriber refuses to allow access to wiring or pay the cost of upgrade. The last issue is particularly difficult when it comes to cable service reconnects which may be made some period of time after the initial disconnection, especially when a

system upgrade has occurred. Again, the issue of wiring ownership seems to presume that this wiring is to be used at some point in the future. The technical reality is that cable wiring may not be usable due to technological obsolescence, deterioration or a system performance upgrades.

CABLE WIRING

- 18. The life expectancy of coaxial cable is definitely limited compared to simple twisted pair conductors. Coaxial cable is deteriorated by heat, ozone, moisture and mechanical wear and tear. In addition, the quality of coaxial cable has continued to improve over the four decades that cable television has been in existence. The cable and wiring devices installed a decade or more ago are often just not capable of adequate performance in today's state of the art systems. This clearly is a much different situation than the telephone wiring analogy where wires that are a half century or more old perform adequately for today's voice services.
- 19. Another potential misapprehension about internal wiring is that coaxial cable is a generic commodity that can be easily used for any of a variety of purposes. Although this could be true in some cases where cable television type services are involved, many systems that are not RF based, such as coaxial cable used for computer Local Area Networks (LANs), are of different impedances and use a different cable construction. These types of systems tend to use 50 ohm (instead of 75 ohm) cables and BNC (instead of F) type connectors. Modern coaxial cable, although capable of passing great bandwidths, may also have other physical attributes that become important in many applications. For example, some types of coax have a greater current capacity to allow the powering of devices

remotely with low voltage DC or AC. Another critical factor is the construction of the cable from materials that must be certified fire retardant, such as plenum cables used in building air spaces. A review of any commercial coaxial cable catalog shows that there are literally hundreds of different types of coaxial cable. Each one of them designed for a specific type of application. Although 75 ohm impedance CATV type coax may well be the largest application in the nation, it is not the type of coaxial cable that is most widely used by most non-CATV applications.

PART II

OTHER ISSUES

20. Before turning to the issue of ownership as such, it is perhaps helpful to summarize briefly and generally the practices of cable companies in New York State relative to the installation and maintenance of residential subscriber drops. Cable companies in New York routinely impose a charge for the installation of the initial television outlet and a separate, usually lesser charge, for the installation of additional outlets or connections. (Most companies also charge separate lower monthly rates for each additional outlet.) A standard installation charge at a fixed dollar amount applies to most subscriber installations. Generally, the standard charge does not reflect the full cost of the installation. Special installation charges are common in certain circumstances. For example, a special installation charge may be imposed for an aerial installation where the dwelling unit is more than 150 feet from the distribution plant and is normally imposed for an underground installation. Special installation charges may also apply to special wiring methods on the

subscriber's premises. In addition to the practices applicable to initial installations, many companies offer a separate, lesser charge for "reconnection." This charge is often limited to reconnection for the same subscriber rather than at the same dwelling unit. Finally, it should be emphasized that cable companies in New York State do not charge for disconnection of cable television service and do not routinely impose a line maintenance fee even if the internal wiring was installed by the subscriber or another.

- 21. Since NYSCCT has consistently held the cable operator responsible for the transmission of video signals to the television receiver or VCR, irrespective of any consideration of ownership of subscriber drop wires or internal wiring, the issue of ownership has not been a significant one. It may be stated as a general matter that to the extent the issue is relevant the cable operator would be presumed to own the wiring installed by it for purposes of delivering cable service except in circumstances where the wire has been installed within the walls and is tantamount to a fixture. Rarely, has the issue of ownership of the wiring generated complaints by residential subscribers. Nor has the issue of removal of wiring upon termination of service been a noteworthy one. To the extent the Senate Report suggests that cable operators' removal of wiring upon termination has caused disruption to a subscriber's property, the experience in New York State has been that removal and consequent disruption is not an issue. Under New York law, any time a cable operator damages private property it is responsible for repairing the damage.
- 22. Given the experience in New York, the effort to clarify the ownership of internal wiring upon termination of service in every instance may prove more disruptive than constructive. Accordingly, NYSCCT urges the Commission to consider the issue and to

adopt rules only to the minimum extent necessary to fulfill its obligation to implement the plain language of the statute and the clear and consistent legislative history. Clarification of ownership of internal wiring for the purpose of determining whether or not the cable operator may remove the same is a manageable goal. Clarification of ownership for the purpose of determining whether a homeowner or tenant is entitled to subscribe to cable service in the future at a reduced or eliminated installation charge, or whether the cable operator is entitled to impose a wire maintenance charge for wiring it does not own, is a considerably more complex matter. For example, termination of cable service creates the immediate potential that the same owner or tenant or his or her successor-in-interest might subscribe to cable television service from the same cable operator in the future. Indeed, this occurs and will occur far more frequently than the use of the wire by a competing multichannel video programming distributor. If such terminating subscriber elected to acquire the internal wiring, should the attributes of ownership be such that he or she is entitled to resubscription on different terms from a subscriber who did not so elect at the time of termination? Congress has not recognized these implications much less provided any guidance on them.

23. The Commission invites comments on "whether and how it should set limits on the amount that can be charged to subscribers for the cable home wiring and the extent to which they have in fact paid for such wiring at the time of installation." (NPRM, para. 5) These questions are particularly illustrative of the complexity that inheres in the issue of ownership of internal wiring. They require consideration not only of all 55 million existing subscribers (each of which can opt to terminate any time after the effective date of

the Commission's regulations) but also all those who will subscribe to cable service for the first time. In respect to the latter, it is likely that the installation charge will be regulated by franchising authorities in accordance with the rules to be prescribed by the Commission pursuant to Section 623 as amended by the Cable Act of 1992. Thus, it is within the power of the Commission in setting the criteria for the regulation of installation charges to include all costs of an installation such that subsequent termination of service would not entitle the cable operator to any additional consideration for the wiring.

- 24. In respect to all existing subscribers, the vast differences in the nature of the installations, the amount paid therefor, and whether the installation charges were regulated or not makes it virtually impossible to do justice to the subscriber and the cable operator in every instance by a simple rule. In Section 3 of the Cable Act of 1992 amending 47 U.S.C. 543 concerning the regulation of rates, Congress has directed the Commission in prescribing rules governing rate regulation to "seek to reduce the administrative burdens on subscribers, cable operators, franchising authorities and the Commission." (Section 623(b)(2)(A)) This objective should also guide the Commission in exercising an implied authority to set charges for the acquisition of internal wiring at termination of service.
- 25. Moreover, it may be observed in the context of charges for acquisition that any amount which is paid by a terminating subscriber specifically for internal wiring is likely to lead such subscriber to believe that he or she has acquired something of value and that some benefit will accrue by reason of such ownership. But there simply is no easy way to assure a future benefit for such wiring. NYSCCT believes that the possibility in the future of different installation charges for different subscribers depending upon ownership

of cable would place a tremendous burden on cable operators and regulators and not necessarily benefit subscribers as a whole. In some cases, the existence of internal wiring would save cable operators the cost of some materials and labor. In other cases, the cost savings would be minimal, and in yet another group of cases the wiring may need to be replaced for a variety of reasons such that the cost of resubscription might equal or exceed a new installation. The overriding emphasis then should be on a policy that does not mislead a terminating subscriber to assume that the internal wiring is necessarily an asset of value that will reduce the future cost of video services, or that such wiring be used by a cable operator or any other multichannel video programming distributor for future video service.

26. The Commission also requests comments on whether and how it should implement distinctions between common wiring within a building containing multiple dwelling units and wiring within a dwelling unit of individual subscribers. (NPRM, para. 3) It seems apparent from the legislative history that Congress intended the Commission to promulgate rules only with respect to wiring within the dwelling unit. (House Report, p. 118; Senate Report, p. 23) Thus, for example, the rules need not pertain to any wiring from the distribution plant located generally in the public right-of-way to the subscriber's dwelling unit. It seems equally clear that the rules would have no applicability to wiring (or any equipment) installed by a cable company in the hallways of apartment buildings or in the common areas of condominiums. It is true that there may be those instances where a cable television company provides service to individual occupants of a multiple dwelling or an institutional or commercial facility through a single contract at a bulk rate with the owner

or operator of the institution where a single determination by said owner or operator to terminate service effects the loss of service to all individual dwelling units or residents. The language of the statute is such that it could extend to such circumstance although it would seem unlikely that it was a primary objective of the legislation. If the Commission finds that it must address this situation in the regulations, it is submitted that the opportunity of the owner or operator to acquire the entire internal distribution plant from the cable company should not be on terms and conditions that would adversely affect the cable operator.

27. NYSCCT has attempted to demonstrate that the internal wiring portion of the subscriber installation is a critical link in the delivery of safe, adequate and reliable cable television service to the subscriber's television receiver. NYSCCT believes that sound public policy must continue to require the franchised cable operator (or other multi-channel video programming distributor) to bear full responsibility for the safety and reliability of the internal wiring regardless of whether it can be said that such wiring is owned by the subscriber or the provider. The risk of Section 16(d) of the Cable Act of 1992 and this proceeding to implement it is that too much attention may be placed upon ownership as such without enough consideration for the very limited practical value that is likely to ensue from subscriber ownership of such internal wiring. Perhaps of greater risk is a policy that

would encourage subscriber ownership of internal wiring and, inadvertently or otherwise, compromise accountability and thereby jeopardize the delivery of safe, adequate and reliable cable services.

Respectfully submitted,

NEW YORK STATE COMMISSION ON CABLE TELEVISION

By:

William B. Finneran

Chairman

Dated: Albany, New York

November 30, 1992